



## Legislation Details (With Text)

**File #:** ID17-171      **Version:** 1      **Name:**

**Type:** Action Item      **Status:** Passed

**File created:** 1/20/2017      **In control:** City Council

**On agenda:** 2/16/2017      **Final action:** 2/16/2017

**Title:** Annual update of Priority Ranking Lists for new traffic signal installations and traffic signal left turn phasing modifications.

**Sponsors:** Public Works Department

**Indexes:**

**Code sections:**

**Attachments:** 1. Attachment A - 2017 signal priority list.pdf, 2. Attachment B - 2017 Left Turn Phasing priority List.pdf

Date	Ver.	Action By	Action	Result
2/16/2017	1	City Council	approved	Pass

## REPORT TO THE CITY COUNCIL

**February 9, 2017**

**FROM:** SCOTT L. MOZIER, PE, Director  
Public Works Department

**BY:** ANDREW J. BENELLI, PE, City Engineer/Assistant Director  
Public Works Department, Traffic and Engineering Services Division

JILL GORMLEY, TE, City Traffic Engineer / Traffic Engineering Manager  
Public Works Department, Traffic and Engineering Services Division

## SUBJECT

Annual update of Priority Ranking Lists for new traffic signal installations and traffic signal left turn phasing modifications.

## RECOMMENDATIONS

Staff recommends that the Council receive the updated City-wide priority ranking lists for new traffic signal installations and traffic signal left turn phasing modifications.

## EXECUTIVE SUMMARY

Staff has completed the annual update of City-wide priority ranking lists for new traffic signal

installations and left turn phasing installations. The update of the priority ranking lists includes new traffic counts, analysis of accidents during the past year, traffic signals which have gone into construction during the past year and engineering consideration of other field changes such as new schools that have opened in the vicinity of the subject intersections. The scoring criteria are based upon traffic engineering criteria established by the Federal Highway Administration (FHWA) and the California Department of Transportation.

## **BACKGROUND**

Every year, the Traffic Engineering Section in Public Works conducts updated traffic counts, reviews intersection accident reports and performs an engineering analysis in accordance with adopted standards of the FHWA and California Department of Transportation. This analysis includes eight-hour traffic volumes, peak hour volumes, pedestrian counts, accident history and proximity of schools to the intersections. Unsignalized intersections are analyzed to determine if installation of a traffic signal is warranted. Warrants are evaluated purely using the Administration standards from the Manual on Uniform Traffic Control Devices. Existing signalized intersections that do not have left turn phasing (i.e., protected left turn movements via green arrows) are analyzed to determine if warrants are met for the installation of left turn phasing, which is based upon the number of peak hour conflicts between through traffic and opposing left turning vehicles or the number of accidents that would be correctable with installation of left turn phasing.

Intersections where warrants are met are then objectively scored and ranked in priority order City-wide. The point system for new traffic signal installations conforms to the FHWA's requirements and is based upon overall traffic volumes for both directions (10 points maximum), peak hour traffic (10 points maximum), three-year history for correctable accidents (5 points per correctable reported collision in the annual average), schools within 0.25 miles (10 points maximum), activity centers within 1,000 feet (3 points maximum), potential signal coordination benefits (5 points maximum), intersection sight distance (2 points maximum), funding opportunities or cost/benefit ratio (2 points maximum) and engineering judgment of special conditions (3 points maximum). The point system for left turn phasing installations is based upon the peak hour product of left turning vehicles and opposing through traffic (5 points maximum), three-year history for correctable accidents (5 points per correctable reported collision in the annual average), schools within 0.25 miles (10 points maximum), activity centers within 1,000 feet (3 points maximum), intersection sight distance (2 points maximum), funding opportunities or cost/benefit ratio (2 points maximum) and engineering judgment of special conditions (3 points maximum).

The updated City-wide priority ranking lists are included as Attachments "A" and "B". The priority ranking lists also indicate the funding status of each intersection. Some intersections must be signalized as a condition of approval for a specific development and have been noted as "Developer to Install". Other intersections have been funded as capital improvement projects based upon a high ranking in prior years and/or a successful grant application for state and federal funds.

Intersections that have been completed or that have started construction since the 2016 annual report have been removed from the priority ranking lists. It should be noted that this past year since the last update, one existing signalized intersection was upgraded with left turn phasing and three intersections were signalized. These intersections have been removed from the priority ranking worksheets. The ranking lists will be used to prepare the FY18 capital improvement budget and to apply for grants in an objective manner based upon available and projected traffic signal mitigation impact fees. Council approved an update of the impact fees and the intersections covered by those

fees on December 8, 2016. Attached to this report, are the priority ranking lists for new signal installations, modifications for left turn phasing, and traffic flow improvements.

The construction schedules have been delayed due to a significant decline in traffic signal mitigation impact fee revenues generated from new development. The average monthly revenue for FY17 July to November is \$129,920 which is an increase from \$89,773/month in FY16.

Previous fiscal year monthly averages are as follows: FY15 - \$93,607/month; FY 14 - 81,356 / month; FY13 - \$95,243 /month; FY12 - \$60,009 /month; FY11 - \$75,707; FY10 - \$63,885/month; FY09 - \$95,572/month; FY08 - \$124,223/month; FY07 - \$247,024/month; and FY06 - \$258,020/month. As compared to FY06, there are currently a larger proportion of new developments which have construction requirements in excess of their fee obligation, which as a result of the City's construction fee credit policy yields a more limited amount of impact fee revenue. Given the limited impact fees currently available for capital projects, the Department's goal has been to pursue alternative funding sources such as federal and state grants for delivery of these projects. Impact fee revenue is also utilized to reimburse developers who have installed traffic signal improvements in excess of their fee obligation amount. Currently the traffic signal fee program owes approximately \$1.3 million to developers for previously completed traffic signal improvements.

## **ENVIRONMENTAL FINDINGS**

By the definition in the California Environmental Quality Act (CEQA) Guidelines Section 15378, the update of the Priority Ranking Lists does not qualify as a "project" as defined CEQA.

## **LOCAL PREFERENCE**

Local preference was not implemented because the update of the priority lists does not include a bid or award a construction or services contract.

## **FISCAL IMPACT**

The annual update of traffic signal priority ranking lists has been accomplished within the operating budget of the Public Works Department. There will be no additional impact on the General Fund.

Attachments:

"A" - Priority Ranking List for New Traffic Signals

"B" - Priority Ranking List for Left Turn Phasing